

We claim:

1. A meal tray assembly, comprising:
  - (a) a meal tray for being mounted for movement between a stowage position flush against a seat back surface and a lowered, horizontal use position;
  - (b) a latch access port extending through the meal tray from a top side to a bottom side thereof;
  - (c) a latch carried on the seat back for cooperation with the latch access port in the meal tray, said latch being mounted for movement between:
    - (i) a release position wherein the latch is extendable through the latch access port for permitting movement of the meal tray to and from the stowage position and the use position; and
    - (ii) a locking position wherein the latch locks the meal tray in the stowage position against the surface.
2. A meal tray assembly according to claim 1, wherein the latch is carried by a latch plate secured to a rear-facing side of a forwardly-positioned passenger seat.
3. A meal tray assembly according to claim 1, wherein the latch access port is recessed from the bottom side of the meal tray, and the latch when in its latching position is recessed below the bottom side of the meal tray for protecting the latch against disengagement during passenger movement past the stowed meal tray.

4. A meal tray assembly according to claim 1, 2 or 3, wherein:
- (a) said latch access port has a relatively long longitudinal dimension and a relatively narrow lateral dimension; and
  - (b) said latch has a relatively long longitudinal dimension and a relatively narrow lateral dimension configured for allowing the latch to extend through the latch access port when the longitudinal dimension of the latch access port and latch are aligned with each other and to interfere with and prevent movement of the meal tray from the stowed position when the longitudinal dimension of the latch is not aligned with the longitudinal dimension of the latch access port.

5. A meal tray assembly according to claim 4, wherein the latch access port is positioned adjacent a side edge of the meal tray adjacent to the user when in the use position.

6. A meal tray assembly according to claim 5, including a grommet having a flat surface and being carried by said latch plate for residing against and stabilizing an adjacent top surface of the meal tray in the stowage position.

7. A passenger seat, comprising:

(a) a ladder frame assembly including a leg for being attached to a supporting surface;

(b) a seat bottom assembly carried by the ladder frame assembly;

(c) a seat back carried by the ladder frame assembly;

(d) a meal tray for being used by a passenger seated aft of the passenger seat, the meal tray being mounted on the passenger seat for movement between a stowage position flush against a rear-facing surface of the seat back and a lowered, horizontal use position;

(e) a latch access port extending through the meal tray from a top side to a bottom side thereof;

(f) a latch plate for being secured to the seat back;

(g) a latch for being carried by the latch plate for cooperation with the latch access port in the meal tray, said latch being rotatably-mounted for movement between:

(i) a release position wherein the latch is extendable through the latch access port for permitting movement of the meal tray to and from the stowage position and the use position; and

(ii) a locking position wherein the latch locks the meal tray in the stowage position against the seat back.

8. A passenger seat according to claim 7, wherein the latch access port is recessed from the bottom side of the meal tray, and the latch when in its latching position is recessed below the bottom side of the meal tray for protecting the latch

against disengagement by passenger impact during passenger movement past the stowed meal tray.

9. A passenger seat according to claim 6, 7 or 8, wherein:

(a) said latch access port has a relatively long longitudinal dimension and a relatively narrow lateral dimension; and

(b) said latch has a relatively long longitudinal dimension and a relatively narrow lateral dimension configured for allowing the latch to extend through the latch access port when the longitudinal dimension of the latch access port and latch are aligned with each other and to interfere with and prevent movement of the meal tray from the stowed position when the longitudinal dimension of the latch is not aligned with the longitudinal dimension of the latch access port.

10. A passenger seat according to claim 9, wherein the latch access port is positioned adjacent to a side edge of the meal tray adjacent to the user when in the use position.

11. A passenger seat according to claim 10, including a detent having a flat surface and carried by said latch plate for residing against and stabilizing an adjacent top surface of the meal tray in the stowage position.

12. A passenger seat according to claim 7, wherein said latch includes a pair of oppositely disposed, raised ears for being engaged by the thumb and forefinger of a user for rotating the latch between the release position and the locking position.

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